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09/213,096	12/17/1998	MOHAN V. KALKUNTE	82771.P335	7422

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EXAMINER
DUONG, FRANK

ART UNIT	PAPER NUMBER
2666	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/213,096	Applicant(s) KALKUNTE ET AL.	
	Examiner Frank Duong	Art Unit 2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 November 2002* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8,21-23 and 25-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8, 21-23 and 25-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. This Office Action is a response to the amendment dated 11/13/2002. Claims 1-8, 21-23 and 25-34 are pending in the application.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1, 21, 25 and 32 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 10, 16 and 19 of copending Application No. 09/271,011. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claimed invention of the instant application encompasses the claimed subject matters of the copending application. Evidence can be found through a comparison of the above claims. The differences between the disputed claims are mere wording and broadened by omitting of certain limitations. Such differences are deemed to be obvious to those skilled in the art. Moreover, the subject matter claimed in the instant application is fully disclosed in

the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter. There is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-8 and 25-31 are rejected under 35 U.S.C. 102(e) as being anticipated by Bellenger (USP 5,802,054).

Regarding **claims 1 and 8**, in according to Bellenger reference entirety (*especially Figs. 3-6 and the description at col. 3, line 1 to col. 4, line 67 and col. 8, line 3 to col. 16, line 10*), Bellenger discloses a method for improving receive performance in a data network (Fig. 3), the method comprising:

receiving up to a plurality of indications denoting the start of frame transmission on a corresponding plurality of communication links (201-1 to 201-X) (*Fig. 4, step 300; col. 10, lines 35-36*);

identifying that at least one of the received identifications denote the start of a flow (*Fig. 4, step 303; col. 10, lines 46-48 and col. 9, lines 4-8*);

dedicating a receive buffer from a plurality of receive buffers (207) to receive all frames associated with the identified flow (*see col. 15, lines 11-14*); and

assigning a pointer value (*identifying tag or hash values*) to each frame based, at least in part, on the relative order in which the indications of start of frame transmissions associated with each frame are received, the corresponding pointer value associated with each respective frame being used to preserve a state of frame transmission order (*see col. 3, lines 7-61, Bellenger discloses a switch node comprises a flow logic generates identifying tag acted as flow signatures to associated a frame with a sequence of frames traversing the switch, and a node route logic performs the blocking technique allows the remote system to which a frame was directed for routing, to forward the frame to its destination, prior to other frames in the same flow sequence being routed to that destination. This preserves the order of the transmission of frames in a particular flow*).

Regarding **claim 2**, in addition to features in base claim 1 (*see rationales pertaining the rejection of base claim 1 discussed above*), the claim further calls for wherein identifying the start of flow includes analyzing information embedded within each of the received frames to determine source and destination information association with said frames (*see col. 3, lines 7-20; Fig. 5, col. 10, line 65 to col. 11, line 40; and Fig. 6, col. 15, line 1-35)*.

Regarding **claim 3**, in addition to features in base claim 1 (*see rationales pertaining the rejection of base claim 1 discussed above*), the claim further calls for determining whether the identified flow required preservation of transmission order (*see col. 3, lines 48-61*).

Regarding **claim 4**, in addition to features in base claim 3 (*see rationales pertaining the rejection of base claim 3 discussed above*), the claim further calls for promoting frames of the received flow in the order received, unless it is determined flow requires preservation of transmission order (*see col. 3, lines 61-65*).

Regarding **claim 5**, in addition to features in base claim 4 (*see rationales pertaining the rejection of base claim 4 discussed above*), the claim further calls for creating a list of pointer values corresponding to transmission order if it is determined that the identified flow requires preservation of transmission order (*see col. 3, line 1 to col. 4, line 39, Bellenger further discloses the switch node also comprises logic which computes a plurality of hash value in response to respective sets of control fields in a received frame*).

Regarding **claim 6**, in addition to features in base claim 1 (*see rationales pertaining the rejection of base claim 1 discussed above*), the claim further calls for promoting frames of the received flow in the order received (*see col. 3, lines 61-65*).

Regarding **claim 7**, in addition to features in base claim 6 (*see rationales pertaining the rejection of base claim 6discussed above*), the claim further calls for determining whether the identified flow requires preservation of transmission order by analyzing protocol identification information embedded within the received frames (*see col. 3, lines 7-20; Fig. 5, col. 10, line 65 to col. 11, line 40; and Fig. 6, col. 15, line 1-35).*

Regarding **claims 25 and 31**, in according to Bellenger reference entirety (*especially Figs. 3-6 and the description at col. 3, line 1 to col. 4, line 67 and col. 8, line 3 to col. 16, line 10*), Bellenger discloses a method comprising:

receiving at least one indication denoting the start of frame transmission on a corresponding plurality of communication links (201-1 to 201-X) (*Fig. 4, step 300; col. 10, lines 35-36*);

identifying a received identification denotes commencement of a flow (*Fig. 4, step 303; col. 10, lines 46-48 and col. 9, lines 4-8*);

dedicating a buffer from a plurality of buffers (207) to receive all frames associated with the identified flow (*see col. 15, lines 11-14*);

(*note at col. 3, lines 41-65, Bellenger discloses the node route logic and its function that implicitly and inherently reads on the next two claimed steps*)

determining whether the identified flow requires preservation of frame transmission order; and

assigning a pointer value (*identifying tag or hash values*) to each frame based, at least in part, on the relative order in which the indications of start of frame transmissions associated with each frame are received, the corresponding pointer value associated with each respective frame being used to preserve a state of frame transmission order (*see col. 3, lines 7-61, Bellenger discloses a switch node comprises a flow logic generates identifying tag acted as flow signatures to associated a frame with a sequence of frames traversing the switch, and a node route logic performs the blocking technique allows the remote system to which a frame was directed for routing, to forward the frame to its destination, prior to other frames in the same flow sequence being routed to that destination. This preserves the order of the transmission of frames in a particular flow*).

Regarding **claim 26**, in addition to features in base claim 25 (*see rationales pertaining the rejection of base claim 25 discussed above*), the claim further calls for wherein identifying the start of flow includes analyzing information embedded within each of the received frames to determine source and destination information associated with said frames (*see col. 3, lines 7-20; Fig. 5, col. 10, line 65 to col. 11, line 40; and Fig. 6, col. 15, line 1-35*).

Regarding **claim 27**, in addition to features in base claim 25 (*see rationales pertaining the rejection of base claim 25 discussed above*), the claim further calls for wherein the relying on the received indications comprises promoting frames of the received frames to determine source and destination information associated with said frames (*see col. 3, lines 61-65*).

Regarding **claim 28**, in addition to features in base claim 25 (*see rationales pertaining the rejection of base claim 25 discussed above*), the claim further calls for creating a list of pointer values corresponding to transmission order only if it is determined that the identified flow requires preservation of frame transmission order (*see col. 3, line 1 to col. 4, line 39, Bellenger further discloses the switch node also comprises logic which computes a plurality of hash value in response to respective sets of control fields in a received frame*).

Regarding **claims 29**, in addition to features in base claim 28 (*see rationales pertaining the rejection of base claim 28 discussed above*), the claim further calls for promoting the received frames from the dedicated buffer in the order received, without regard to frame transmission order, unless it is determined that the identified flow requires preservation of frame transmission order (*see col. 3, lines 7-65; Fig. 5, col. 10, line 65 to col. 11, line 40; and Fig. 6, col. 15, line 1-35).*

Regarding **claims 30**, in addition to features in base claim 25 (*see rationales pertaining the rejection of base claim 25 discussed above*), the claim further calls for determining whether the identified flow requires preservation of frame transmission order by analyzing protocol identification information embedded within the received frames (*see col. 3, lines 7-20; Fig. 5, col. 10, line 65 to col. 11, line 40; and Fig. 6, col. 15, line 1-35).*

Regarding **claim 32**, in according to Bellenger reference entirety (*especially Figs. 3-6 and the description at col. 3, line 1 to col. 4, line 67 and col. 8, line 3 to col. 16, line 10*), Bellenger shows a network device (Fig. 3) comprising:

means for receiving an indication to denote commencement of a flow of frame transmission *(see Fig. 3, element 215 and the description at col. 3, lines 7-24 or Fig. 4, step 300; col. 10, lines 35-36);*

means for indicating at least one receive buffer to receive all frames associated with the flow (*see Fig. 3, elements 212, 211 and 207 and the description at col. 15, lines 11-14*); and

means for assigning a pointer value (*identifying tag or hash values*) to each frame based, at least in part, on the relative order in which the indications of start of frame transmissions associated with each frame are received, the corresponding pointer value associated with each respective frame being used to preserve a state of frame transmission order (*see col. 3, lines 7-61, Bellenger discloses a switch node comprises a flow logic generates identifying tag acted as flow signatures to associated a frame with a sequence of frames traversing the switch, and a node route logic performs the blocking technique allows the remote system to which a frame was directed for routing, to forward the frame to its destination, prior to other frames in the same flow sequence being routed to that destination. This preserves the order of the transmission of frames in a particular flow*).

Regarding **claim 33**, in addition to features in base claim 32 (*see rationales pertaining the rejection of base claim 32 discussed above*), the claim further calls for means for promoting frames of the received flow in the order received (*see Fig. 3, elements 212, 211 and 207 and the description at col. 3, lines 61-65).*

Regarding **claim 34**, in addition to features in base claim 32 (*see rationales pertaining the rejection of base claim 32 discussed above*), the claim further calls for creating a list of pointer values corresponding to transmission order if it is determined that the identified flow requires preservation of transmission order (*see Fig. 3, elements 215 and the description at col. 3, line 1 to col. 4, line 39, Bellenger further discloses the switch node also comprises logic which computes a plurality of hash value in response to respective sets of control fields in a received frame*).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 21-23 rejected under 35 U.S.C. 103(a) as being unpatentable over Sellenger.

Regarding **claims 21-23**, the claims calls for a computer program of the claimed method of claims 1 and 4-5, respectively (*see rationales pertaining the rejections of claims 1 and 4-5 discussed above*). Translating the method steps into a computer program is deemed to obvious and well known to those skilled in the art to provide an automated flow control system.

Thus, it would have been obvious to those skilled in the art at the time of the invention was made to translate or code a computer program for Bellenger's method

steps of claims 1 and 4-5 to arrive the claimed invention with a motivation to provide an automated flow control system.

Response to Arguments

5. Applicant's arguments filed 11/13/2002 fully considered but they are not persuasive. Applicants' arguments will be addressed hereinbelow in the order in which they appear in the response filed 11/13/2002.

In the Remarks of the outstanding response, on page 8, last paragraph, Applicants state "*Bellenger does not disclose or suggest the assignment of the plurality of* ***pointer values*** *based, at least in part, on the relative order in which* ***data frames are transmitted on each of the virtual links*** *(emphasis added)".*

In response Examiner respectfully disagrees. A careful review of the disputed claims Examiner finds no such limitations of "*pointer values*" nor "*data frames are transmitted on each of the virtual links*". Perhaps applicants refer to certain features that are disclosed in the present application but not recited in the rejected claims in making the contention that the Bellenger reference fails to show certain feature of applicant's invention. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. *See In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).* As far as the disputed claimed limitation of "*assigning a pointer value to each frame based, at least in part, on the relative order in which the indications of start of frame transmissions associated with each frame are received, the corresponding pointer value associated with each respective frame being*

used to preserve a state of frame transmission order", Examiner is content the Office Action has clearly pointed out corresponding to Bellenger reference.

Also in the Remarks of the outstanding response, on page 9, Applicants assert *"Bellenger's tags are not pointer values that are assigned to provide an indication of the relative order of frame transmission as claimed. The identifying tag of Bellenger can also not be employed, on its own, to preserve the state of frame transmission order. Thus, the tag system of Bellenger is clearly different and distinguishable from what is claimed in the above-recited element of claim 1 where pointer values are employed to mark the relative order of frame transmission".*

In response Examiner again respectfully disagrees. Applicants argue based on plurality ("pointer values") while the claims call for singularity ("pointer value"). In addition, at col. 3, lines 7-61, Bellenger discloses a switch node comprises a flow logic generates identifying tag or hash value. Such tag acts as flow signatures associated a frame with a sequence of frames traversing the switch. Moreover, the switch node, Bellenger further discloses, also comprises a node route logic performs the blocking technique allows the remote system to which a frame was directed for routing, to forward the frame to its destination, prior to other frames in the same flow sequence being routed to that destination. This preserves the order of the transmission of frames in a particular flow. Clearly, Bellenger discloses the blocking is performed based on the identifying tag. Thus, contradistinction to Applicants' assertion, Bellenger's tags are pointer values that are assigned to provide an indication of the relative order of frame transmission as claimed. As far as the argument of "*The identifying tag of Bellenger*

can also not be employed, on its own, to preserve the state of frame transmission order", Examiner finds no such language in the Bellenger reference nor in the disputed claims. Perhaps Applicants should incorporate such language in the disputed claims to disqualify Bellenger reference or perhaps applicants refer to certain features that are disclosed in the present application but not recited in the rejected claims in making the contention that the Bellenger reference fails to show certain feature of applicant's invention. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. *See In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).*

In the Remarks of the outstanding response, on page 10, in reference to claims 21-23, Applicants assert claims 21-23, as amended, are not obvious over Bellenger because Bellenger does not teach, disclose, or suggest the disputed limitation discussed above.

In response Examiner respectfully disagrees for the same rationales pertaining the rejection of claim 1 discussed above.

Examiner believes an earnest attempt have been made in addressing all of the Applicants' argument. The rejection base on Bellenger reference is maintained.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank Duong whose telephone number is (703) 308-5428. The examiner can normally be reached on 7:00AM-3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (703) 308-5463. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

Frank Duong
January 22, 2003

S Rao Seema S. Rao
SPE AU 2666 1/27/03

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